

Patella Instability Nonoperative Protocol

	Phase I: 1-2 weeks	Phase II: 3-6 weeks
Weight-Bearing and Immobilization	<ul style="list-style-type: none"> • WBAT • Hinged knee brace 0-90° and may progress to full ROM when excellent quadriceps control/strength 	<ul style="list-style-type: none"> • WBAT • Discontinue brace when excellent quadriceps control/strength, stable normalized gait, and resolution or significant improvement in knee effusion
Aerobic	<ul style="list-style-type: none"> • None 	<ul style="list-style-type: none"> • Stationary bike for ROM (minimal resistance, elevated seat height)
Range of Motion (ROM) and Strengthening	<ul style="list-style-type: none"> • Emphasis on regaining full extension • Heel slides 0-90° • Ankle pumps • Isometric quadriceps sets • May progress to full ROM in hinged knee brace when excellent quadriceps control/strength 	<ul style="list-style-type: none"> • Continue exercises from Phase I • Gentle patellar mobilization exercises • Progress to full and symmetric ROM • Begin progressive strengthening when full or near-full ROM, excellent quadriceps control, stable normalized gait, and resolution of knee pain and effusion <ul style="list-style-type: none"> ▸ Mini squats ▸ Hip external rotators and abductors ▸ Core ▸ Leg press ▸ Leg extensions ▸ Straight leg raise • Begin two-leg balance and proprioception exercises
Other	<ul style="list-style-type: none"> • Modalities as needed to reduce swelling and improve muscle recruitment • Home Exercise Program (HEP) per discretion of Physical Therapist 	
Goals	<ul style="list-style-type: none"> • Pain control • Reduce effusion • Protection of tissue healing • Minimize joint stiffness 	<ul style="list-style-type: none"> • Progress to full and symmetric ROM • Begin strengthening program • Begin balance and proprioception exercises

	Phase III: 6-10 weeks	Phase IV: 10-12+ weeks
Weight-Bearing and Immobilization	<ul style="list-style-type: none"> • WBAT • No immobilization necessary • May use a patella stabilization brace during activity according to patient preference 	
Aerobic	<ul style="list-style-type: none"> • Advance through following progression as tolerated <ul style="list-style-type: none"> ▸ Continue stationary bike (may increase resistance and lower seat to regular height when 115° of knee flexion) ▸ Initiate retro treadmill with 3% incline for quadriceps control and advance incline as tolerated ▸ Stair climber 	<ul style="list-style-type: none"> • Begin walk-jog-run progression and sport-specific drills as tolerated when: <ul style="list-style-type: none"> ▸ Quadriceps strength >80% of contralateral side ▸ Active ROM 0-125° ▸ Functional hop test >70% contralateral side ▸ No pain or swelling ▸ Good lower extremity control and landing mechanics on jump-downs ▸ Gradual progression to include zigzags, lateral shuffles, hops, jumps, cuts, and sport-specific drills • Return to sports when: <ul style="list-style-type: none"> ▸ Full active ROM ▸ Quadriceps and hip external rotator strength >90% of contralateral side ▸ Functional hop test >90% contralateral side ▸ Completion of running program ▸ No pain or swelling
Range of Motion (ROM) and Strengthening	<ul style="list-style-type: none"> • Continue exercises from Phase II • Advance strengthening exercises with additional exercises and/or increased resistance/weight <ul style="list-style-type: none"> ▸ Wall or ball squats ▸ Step-up and step-down progression • Begin step-up and step-down progression with gradually increasing heights (4-, 6-, 8-, 12-inches) • Progress to one-leg balance and proprioception exercises • Lateral step-out with bands • Sportcord/bungee walking • At week 9, may begin slide board • At week 9, may begin plyometric program 	<ul style="list-style-type: none"> • Continue exercises from Phase III • Begin resistance open-chain knee extension exercises • Begin jump-downs with double-stance landing
Other	<ul style="list-style-type: none"> • Modalities as needed to reduce swelling and improve muscle recruitment • Home Exercise Program (HEP) per discretion of Physical Therapist 	
Goals	<ul style="list-style-type: none"> • Advance strengthening exercises • Advance balance and proprioception • Begin plyometric program 	<ul style="list-style-type: none"> • Gradual return to running, sport-specific drills, and full sports when aforementioned criteria met • Begin to wean from supervised PT